CHAPTER 23

OTOLARYNGOLOGY DEPARTMENT (ENT)

STANDARD OPERATING PROCEDURES

500 BED FLEET HOSPITAL

TABLE OF CONTENTS

500 BED FLEET HOSPITAL

STANDARD OPERATING PROCEDURES

OTOLARYNGOLOGY DEPARTMENT

A. **MISSION:** To render immediate otolaryngology-head and neck surgical care necessary to sustain life and limb.

1. Capabilities include: Airway stabilization, repair of compound frontal sinus fractures, stabilization of maxilla-facial fractures, stabilization of naso-orbital fractures, repair of musculoskeletal, pharyngeal, and soft tissue wounds, acute repair of laryngotracheal wounds, acute management to ear trauma and the facial nerve, acute management of airway and head and neck burns, acute management of ORL-HNS medical diseases, acute management of tumors of the head and neck and acute management of deep neck infections.

2. Capabilities not included: Management of chronic ear disease, and elective surgical reconstruction.

B. **FUNCTIONS:**

1. Provide acute medical and surgical otolaryngology-head and neck surgical care.

2. Provide consultation and assistance to other surgical and medical departments within ORL-HNS capabilities.

C. **PHYSICAL DESCRIPTION:**

1. Specialty Treatment Unit.

(a) Location within complex:

(b) Sheltering.

Type: Temper Tent.

Quantity: Two to four sections.

(c) Material.

IOL:

2. Operating Room.

(a) Location within complex:

(b) Sheltering.

Type: Expandable, hardwall shelters and Temper Tents.

Quantity: Three 3:1 ISO Shelters, approximately three temper sections

(c) Material.

IOL:

D. **SPECIAL CONSIDERATIONS:**

1. The Otolaryngologist-head and neck surgeon should be prepared to respond to airway emergencies at any location in the hospital, and have the necessary materials available (i.e., rigid bronchoscopy and tracheostomy sets).

2. Because of his broad training in the surgical field which includes general surgery, neurosurgery, anesthesia, trauma, and head and neck medical diseases, the Otoloaryngolgist can be an assistant to these specialties when needed.

3. Minor surgical procedures can be performed in the clinic space and in the minor operating room. The main O.R. is reserved for appropriate major surgical surgical cases.

E. **WORKLOAD:**

1. Average daily admissions.

(a) Steady state = 80 admissions/day 54 surgical, 26 medical.

(b) Peak state = 120 admissions/day 80 surgical, 40 medical.

2. Over a 30 day period, approximately 7.5% of all admissions will have a primary Otolaryngology/Head and Neck Surgery diagnosis.

3. Data from a ten year experience at a middle east medical center, however, reveals that the relative incidence of head and neck injuries varies between 34% and 77% of the total number of casualties.

F. **ORGANIZATION:**

1. Responsibility. The Head, Otolaryngology Department, who reports to the Director of the Surgical Services, is assigned overall management responsibility.

2. Organizational chart.

DIRECTOR
SURGICAL DEPT

HEAD, OTOLARYNGOLOGY
DEPARTMENT
(2100) (1) CDR

OTHORHINOLARYNGOLOGIST
(2100) (1)
LCDR

OTOLARYNGOLOGY
TECH
(8446) (1)
E-5

OTOLARYNGOLOGY
TECH
(8446) (1)
E-4

3. Staffing.

(a) Criteria.

(1) Ratio: Minimal staffing requirements per OR

table:

a One anthesiologist/ or local anesthesia by surgeon.

b One surgeon.

c One/half circulating nurse.

d One OTO Tech/E-5.

e One OR Tech/E-4.

(2) Special qualifications of personnel.

a Otolaryngologist will have subspecialty code 1565.

b Oral surgeon will have subspecialty code 1750.

c Otolaryngology Technician will have NEC 8446.

(b) Staffing pattern: Two 12 hour watches.

Personnel Assigned	AM Watch	Night Watch	Total
Head, Otolaryngologist/ Head & Neck Surgeon	1	-	1
Othorhinolaryngologist	-	1	1
Otolaryngology Tech	1	1	1

4. Assignment by Billet Sequence Code: Tab A, Page 8.

5. Watch Bill: Tab B, page 9.

6. Special Watches: N/A

G. **TASKS**:

Task		Method
1. MAINTAIN READINESS	1.1	Check that tracheostomy sets are available in the Casualty Receiving Area, the OTO-HNS

		Treatment area, the minor OR, and the main OR.
	1.2	Check that rigid bronchoscopes are readily available for airway emergencies.
	1.3	Check daily that minor surgical sets are available in the Casualty Receiving area for head and neck hemorrhage control.
2. COORDINATE ORL-HNS	2.1	The Head, ORL-HNS will:
	2.1.A	Coordinate all surgical procedures with the minor OR and main OR.
	2.1.B	Prepare a daily OR schedule.
schedule OR, Main OR, Anesthesia departments.	2.1.C	Distribute the to the Minor and
3. PREPARE FOR SURGICAL PROCEDURES	3.1	The ORL tech will:
	3.1.A	Clean and set up the ORL operating apparatus and treatment space daily or as necessary.
	3.1.B	Remove used exam instruments, scrub with germicidal solution and rinse.
	3.1.C	Dispose of trash and waste material in double plastic bags.
	3.1.D	Disengage all

		needles and scaple blades from handles and place in tray IAW TAB C-1.
	3.1.E	Dispose of liquid medical waste, suction machine) IAW TAB C-2.
	3.1.F	Return outdated drugs to Pharmach for disposal.
	3.1.G	Roll linens in cocoon fashion and double bag in a fabric laundry bag.
	3.1.H	Damp dust treatment space with germicidal solution daily.
4. PROVIDE ORL-HNS	4.1	Perform ORL-HNS IAW established standards of combat casualty care and in concert with tasks and procedures contained in Chapter 19, Operating Room.
5. MAINTAIN MATERIAL READINESS	5.1	ORL Technician will:
	5.1.A	Perform operator maintenance on ENT operating apparatus as required by Operator Manuals.
	5.1.B	Perform biological calibration of audiometric equipment weekly.
	5.1.C	Keep inventory of ORL treatment area supplies and linens, and restock as necessary.
	5.2	Keep inventory and restock the following sets for use

		in the OTO-HNS treatment area:
	5.2.A	Epistaxis Trays (3).
	5.2.B	Nasal Fracture Set (3).
	5.2.C	Peritonsillar Abscess Tray (2).
	5.2.D	Sinus Irrigation Set (3).
	5.2.E	Minor Laceration Suture Set (1).
	5.2.F	Obtain maintenance and repair of medical and non-medical equipment.
6. PERFORM LEADERSHIP TASKS	6.1	Provide training and supervision to assist assigned personnel to advance their clinical and administrative abilities.
7. PROVIDE CONTINUING EDUCATION	7.1	Provide orientation to the ORL-HNS Department.
	7.2	Evaluate staff skills prior to assigning more Complex duties.
	7.3	Cross-train personnel in all specialty and indirect care areas.
	7.4	Provide senior personnel with experience in administration, clinical teaching, and supervision.

		7.5 Conduct classes on special procedures, principles, and equipment.
8. PROVIDE SUPERVISION	8.1	Provide performance counselling to all personnel on a continuing basis.

H. **STANDARD OPERATING PROCEDURES**: See TAB C,page 10.

I. **CLINICAL POLICIES/GUIDELINES**: See TAB D,page 48.

J. **STANDARDS AND JOB DESCRIPTIONS**: See TAB E,page 52.

K. **DOCUMENTATION**:

1. References See TAB F,page 62.
2. Forms See TAB G,page 63.

TAB A

ASSIGNMENTS BY BILLET SEQUENCE CODE

Department: OTOLARYNGOLOGY

Billet Number	Title	Designator/ Spec. Code	Rank/ Rate	Watch Section
58029 *	HEAD, OTO-HNS DEPT	2100	O-5	
58049 +	OTHORHINOLARYNGOLOGIST	2100	O-4	
58019 *	ENT TECHNICIAN	0000/HM	E-5	
58039 +	ENT TECHNICIAN	0000/HM	E-4	

* NOTE: Permanent AM watchstander.

+ NOTE: Permanent PM watchstander.

TAB B

WATCH BILL FOR OTOLARYNGOLY - HEAD AND NECK SURGERY DEPARTMENT

Section	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
1	A	A	A	A	A	A	E	A	A	A	A	A	A	E	A	A	A	A	A	A	E
		*							*									*			
2	E	P	P	P	P	P	P	E	P	P	P	P	P	P	E	P	P	P	P	P	P

KEY:

A = 0700-1900.

P = 1900-0700.

E = Excused.

* = Call.

TAB C

STANDARD OPERATING PROCEDURES INDEX

TAB C-1

SHARP ITEM PRECAUTIONS

A. **PURPOSE:** To dispose of used needles and knife blades in a safe manner. To prevent injury and potential risk of contacting hepatitis, syphilis, malaria, aspergillosis, or aids.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Needle rack.

2. Perforated stainless steel box.

3. Needle holder.

D. **CRITERIA:**

1. Needles are never discarded loose in trash receptacles.

2. Knife blades are always removed from handles before reprocessing is done.

3. Share objects must be enclosed and secured so they cannot perforate the receptacle.

E. **STEPS:**

1. Upon completion of surgical case, the Surgical Tech will:

(a) Separate sharp objects from other instruments.

(b) Remove knife blades from handles.

(1) Point the blade toward table away from self.

(2) Remove blades with a needle holder, never use fingers.

(3) Place used blades in a non-penetratable box.

(c) Place reusable surgical needles, either on needle rack or loose, into a perforated stainless steel box.

(d) Dispose of needles in a needle-destruction unit.

2. CSR Decontamination Technician will:

(a) Remove any blades/needles from non-operating room departments in the same manner as the Surgical Technician.

(b) Run reusable needles, placed in a perforated stainless steel box through the washer-sterilizer.

3. CSR Collection HM will:

(a) Collect needle destruction units every other day and empty contents into a firm, self-closing box with padded adhesive tape to secure the opening.

(b) Collect the firm, self-closing boxes located in operating room support space that contain used knife blades.

(c) Take the sealed, labelled contaminated boxes to Environmental Health Department for final disposition.

4. If accidently puncture/cut finger with contaminated needle/knife blade, do the following:

(a) Notify area supervisor.

(b) Report to Specialty Treatment Area for first aid.

(c) Complete an incident report on NAVMED 6010/14 form.

F. **RESPONSIBILITY:**

1. OR Technicians.

2. CSR Technicians.

3. Environmental Health Department.

TAB C-2

HAZARDOUS WASTE

A. **PURPOSE:** To provide guidance for the collection, handling and disposal of hospital generated wastes which have contacted living organisms or may otherwise be considered infectious or hazardous.

B. **DEFINITION:**

1. Background: The operation of health care facilities creates waste materials, some of which are hazardous. A subset of hazardous waste is infectious waste; proper handling of infectious waste is mandatory, to prevent spread of infectious diseases. The methods of handling infectious waste, from its generation to its ultimate disposal, must be adhered to strictly by all hands, without exception.

2. Relationship with Host Nations: It is anticipated that the hospital will be operating, in a wartime or conflict mode, on foreign soil. Close liaison with force planners during the pre-deployment planning phase is essential for the hospital command to determine host nation requirements for handling, storage and disposal of infectious hazardous wastes. Whenever possible, agreements and/or contracts with host nations should be secured for the incineration or sanitary burial of wastes in accordance with the host nation's regulations. During peacetime exercises on U.S. soil, adherence to federal, state and local environmental laws and regulations, partially listed in Appendix A, shall be strictly enforced.

3. Categories of Hospital Generated Waste: It must be clearly understood that the field hospital will generate four distinct categories of waste. Each type will require special handling procedures from generation to disposal. These categories are:

(a) Infectious waste - generated in patient contact, laboratory and surgical areas.

(b) Hazardous waste - usually chemical in nature and generated in the Laboratory, X-ray and Public Works department.

(c) Infectious hazardous waste - generated in the laboratory.

(d) Non-infectious waste - generated in all areas of the hospital.

4. Definitions.

(a) Infectious waste is defined as waste originating from the diagnosis and treatment of people. There are five (5) broad categories of infectious waste recognized by the Centers for Disease Control (CDC):microbiological, blood and blood products, pathological, sharps, and isolation waste. Examples of each of these types include, but are not necessarily limited to, the following:

(1) Microbiological - wastes generated in laboratories processing bacterial, fungal, mycobacterial, or viral materials, such as media-containing plates, tubes, or diagnostic strips; swabs; glass slides; pipettes. Live virus vaccines (including smallpox, yellow fever, rubella, measles, mumps, polio, and adenovirus) and any of the associated equipment for their use also fall into this classification.

(2) Blood and blood products - wastes generated in the collection processing, and use of blood and blood products; tubes for diagnostic blood collection; items and materials contaminated with blood or blood products that are not designed for cleaning, resterilization, and reuse.

(3) Pathological - pathologic specimens, body tissues, contaminated disposable instruments, and laboratory waste generated in the performance of medical treatment procedures and diagnostic laboratory testing.

(4) Sharps - any diagnostic or therapeutic item possessing a surface capable of piercing human skin, not designed

for cleaning, resterilization, and reuse. Examples would include needles for injections, preparation of intravenous medicinals, indwelling cannulae, and diagnostic testing (e.g., lumbar puncture, thoracentesis, paracentesis, etc.); scalpels; and other disposable instruments with a surface capable of piercing human skin.

(5) Isolation waste - wastes generated in the therapy of patients on isolation precautions. Examples would include gowns; gloves; masks; head covers; dressings; disposables basins; paper towels used in isolation rooms; and other such items and materials used in the care of isolation patients that are not designed for cleaning, resterilization, and reuse.

(b) Fomites - an object or item that is not of itself harmful, but may harbor pathogenic microrganisms and serve as a vehicle in the transmission of infections. Examples would include but are not limited to bedding, linen, cloth towels and washrags, diagnostic medical instruments (e.g., stethoscopes, sphygmomanometers, thermometers), and personal items (e.g., razors, toothbrushes, toiletries).

(c) Hazardous waste - any wastes, or combination of wastes, which because of its quantity, concentration, physical or chemical properties may pose a substantial present or potential threat to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

(d) Infectious hazardous waste - any combination of materials and agents that meet the definitions described in 2-4.a. and 2-4.c. above. These wastes will typically be generated in the laboratory when organic pathogens are combined with hazardous chemicals or reagents.

(e) Non-infectious waste - waste generated from non-clinical spaces and waste from patients and their related procedures, where no infection or contagious disease exists.

(f) Storage - the holding of infectious hazardous

waste
for a temporary period, at the end of which the waste is
treated,
disposed of, or stored elsewhere.

(g) Treatment - any method, technique, or process designed to change the chemical, physical, or biological characteristics of any infectious hazardous waste so as to
render
such waste nonhazardous, or less hazardous or safer for transportation, storage or disposal.

(h) Autoclave - an apparatus using steam under
pressure
for sterilizing medical equipment.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**: N/A.

D. **CRITERIA**:

Hazardous waste is properly handled and disposed.

E. **STEPS**:

1. Handling.

(a) Infectious and infectious hazardous waste.

(1) Ward and laboratory personnel shall utilize personal protective clothing and procedures which would
normally
be practiced in a traditional health care setting for the
control
of the spread of disease.

(2) Personnel shall wear disposable gloves, gowns, and shoe and hair covers.

(3) Patient contact and laboratory areas will
utilize
clearly marked, impervious, containers for the disposal of all sharps. When full, the sharps container shall be securely
closed
with autoclave tape.

(4) Patient areas will utilize clearly marked containers lined with double plastic bags, the outer bag being
an
orange autoclavable "biological hazard" bag. These containers will be separate from non-infectious "trash" containers. When full, the inner bag will be sealed with autoclave tape. The

outer bag will be sealed with filament reinforced tape and autoclave tape.

(b) Hazardous waste.

(1) Protective equipment, as described in DHHS (NIOSH) Publication No. 81-123 will be utilized by personnel handling hazardous waste.

(2) All hazardous waste will be containerized. Ideally, in the original container or containers designed for the collection of such wastes such as those provided with automated laboratory equipment.

(3) Containerized and transporting to storage areas will be accomplished by the waste generator (i.e., lab, x-ray, public works, etc.).

2. Transport and storage.

(a) Infectious waste.

(1) Ward personnel will deliver properly sealed sharps containers and double bagged infectious waste, to the laboratory temporary holding area, on a regularly scheduled basis. Ideally, this area will be one of low traffic and prohibitive to patient care, smoking, eating, and food or medicinal handling.

(2) Ideally, ward personnel will store and transport multiple bags of infectious waste in large, covered containers (i.e., "GI" cans with tight fitting lids). These containers shall be scrubbed with a germicidal solution at least once per shift or more often if grossly contaminated.

(3) Laboratory personnel will handle and routinely autoclave waste under steam pressure for a minimum of fifteen (15) minutes. After proper autoclaving, these wastes may be handled as noninfectious depending on host nation requirements.

(b) Hazardous waste.

(1) As noted in paragraphs 3-1 b.2, hazardous waste will be stored in their original containers or those designed for

collection of such wastes.

(2) Waste generating personnel will containerize waste according to its chemical grouping such as lubricants, fuels, acids, alkalines, chlorinated hydrocarbons, etc. Containers will be tightly sealed and labeled.

(3) Storage areas will be at least 100 yards from the hospital compound and actual or potential potable water sources. Ideally, these areas will be elevated with natural drainage away from the hospital and water sources. Waste containers should be protected from the elements and the area clearly marked as "Hazardous Waste Storage."

3. Disposal.

(a) General. It must be understood that, in an operational situation, the methods of waste disposal range form ideal to undesirable. The following disposal methods are intended to guide the hospital command towards utilization of the best disposal method for any given situation.

(1) Host Nation Agreement - Under the Status of Forces Agreement the cognizant Commander-in-Chief (CINC) will negotiate with the host country for disposal services.

(2) The cognizant CINC will provide disposal services utilizing established logistical support channels within the theater of operations such as the Supply Battalion of the Force Service Support Group, or supply ships.

(b) Methods. In the absence of the preferred, above mentioned disposal methods, the following may be utilized.

(1) Nonhazardous/noninfectious waste (including properly autoclaved infectious waste).

a Burial in a pit as deep as organic equipment will allow and covered with at least two feet of earth. Burial pits should be at least 100 yards from the hospital compound and potable water sources.

b Burning by mixing with fuel oil until only ash remains. Ash should then be buried as above. Tactical consideration must be given to open burning as smoke may give away the hospitals location.

(2) Hazardous waste.

a Laboratory chemical waste which contains infectious, organic matter, is to be treated as hazardous as autoclaving of liquids in closed containers is not authorized.

b Burial in sealed, marked containers, as deep as organic equipment will permit. Burial sites should be lined with plastic sheeting, covered with at least four feet of earth and conspicuously marked. Sites should be at least 100 yards from the hospital compound and potable water sources.

F. **RESPONSIBILITY:**

1. The Commanding Officer is responsible for ensuring the proper management of the overall infectious and hazardous waste program and to interface with the host nation to ensure local regulations are satisfied.

2. Nursing Service via the clinical staff is responsible for the handling of all wastes generated in clinical spaces. This includes ensuring that adequate supplies of hampers, bags, tapes, sharps containers, and protective clothing are maintained in these spaces.

3. Laboratory Service is responsible for handling hazardous infectious wastes once it is delivered to or generated by the laboratory. The service is also responsible for proper autoclaving of such wastes to render it free from pathogens.

4. Surgical Service is responsible for handling wastes generated within the operating room giving special attention to surgically removed human tissue.

5. Operating Management is responsible for the removal of waste from the central collection points, including the laboratory, and delivery to the designated pickup area such as

the "back loading dock."

6. Public Works Department is responsible for the removal of wastes from the hospital compound and ensuring its proper disposal as outlined in this SOP.

TAB C-3

CARDIAC ARREST PROCEDURE

A. **POLICY:** In the event of sudden cessation of breath, heartbeat, or both, every effort shall be made to re-establish respiratory and/or circulatory function as soon as possible. Cardiopulmonary resuscitation shall be initiated in each incident, unless countermanded by a medical officer, or by written order in the patient's record

B. **PROCEDURE:**

1. After assessment of cardiac or respiratory arrest is made, immediately initiate basic life support.

(a) Verify unresponsiveness.

(b) Call for help.

(c) If unresponsive, open the airway.

(d) Check if breathing.

(e) If not breathing, give 2 full ventilations, 1 to 1 1/2 seconds each.

(f) Check carotid pulse.

(g) If pulse is absent, start chest compressions, 80 - 100 per minute.

2. Have secon person call arrest team.

(a) Pick up field phone and state "CODE BLUE" in Otolaryngology.

(b) Communication personnel will announce over PA system "CODE BLUE" in Otolaryngology.

3. Have second or third person bring emergency equipment to the scene.

(a) Emergency Cardio Resuscitation Kit.

(b) Oxygen cylinder.

(c) Suction machine with all catheters attached.

4. Members of the arrest team will:

(a) Perform chest compression (one member).

(b) Manage airway and do ventilations (one member).

(c) Start an IV.

(d) Draw up and administer medications as directed by ACLS certified member or Medical Officer (one member).

(e) Document arrest on Cardiac Arrest Flow Sheet. This member will be the same throughout the emergency.

C. **VITAL POINTS**:

1. Basic life support must not be interrupted for more than 5 seconds.

2. Advanced life support is only effective if proper basic life support is initiated and maintained.

3. Complete, specific nursing notes showing the exact time of events on Cardiac Arrest Flow Sheet.

4. Arrival of the arrest team does not relieve nursing personnel of responsibility. (The units must perform coordinated, complimentary functions.)

D. **EDUCATION REQUIREMENTS**:

1. All medical personnel must maintain Basic Cardiac Life support(BCLS) certification.

2. All medical officers and Critical Care Area Nurses should maintain advanced Cardiac Life Support (ACLS) certification.

3. CPR drills will be conducted monthly on all nursing wards in order to assure medical personnel awareness of their role in a code.

TAB C-4

REACTION TO MEDICAL EMERGENCIES

A. **PURPOSE**: To establish the protocol to react to medical emergencies.

B. **DEFINITION**: Medical emergency is a situation causing a life threatening condition that requires immediate medical attention to sustain life.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**:

1. Equipment.

   (a) Crash cart.

   (b) Litter with blankets.

2. Supplies.

   (a) As provided on crash cart.

   (b) As requested by attending physician.

3. Forms.

   Chronological Record of Patient Care (SF 600).

D. **CRITERIA**:

All equipment properly supplied and functional.

E. **STEPS**:

1. Shock.

   (a) Lay patient down with feet elevated.

   (b) Keep patient warm.

   (c) Notify medical officer.

2. Hemorrhage.

   (a) Apply direct pressure to area.

   (b) Notify medical officer.

3. Pulmonary arrest.

(a) Establish airway.

(b) Give mouth-to-mouth.

4. Cardiopulmonary arrest.

(a) Establish airway.

(b) Start CPR.

(c) Notify medical officer.

(d) Call code.

5. Obstructed airway.

(a) Clear mouth.

(b) Four blows back, four ABD thrusts.

(c) Until airway opens.

(d) Notify medical officer.

6. Emergency procedure for adverse reaction to contrast agents.

(a) With hives (urticarial), erythema, itching, or angioedema.

Notify attending physician.

(b) With the above and dyspnea (difficulty in breathing).

(1) Call for all help immediately.

(2) Apply a tourniquet above the injection site to impede venous and lymphatic flow, but not arterial circulation.

(3) Protect airway, suction as needed.

(4) 0_2 high flow (10-15 L/min), by reservoir mask.

(5) Patient should be supine with legs elevated unless respiratory distress predominates.

(c) Assist the physician or nurse with the following:

(1) Start large bore IV with NS TKO.

(2) Epinephrine 0.5 mg 1:10,000 SQ in opposite arm.

(3) Benadryl 50 mg IV push by physician.

(d) With BP less than 80 and patient critical.

(1) IV NS wide open.

(2) Epinephrine 1:10,000 0.2mg to 0.3 mg may be given very slowly IV push by physician.

(3) Benadryl 50 mg IV push by physician.

(e) Transport to Casualty Receiving as soon as possible for further definitive care.

7. Simple fainting.

(a) Lay patient down.

(b) Keep warm.

(c) Notify medical officer.

TAB C-5

DEFIBRILLATION

A. **PURPOSE**: To terminate ventricular fibrillation immediately, facilitating the establishment of an effective cardiac rhythm.

This is the first and only treatment for ventricular fibrillation.

B. **DEFINITION**: Also known as precordial shock, it is the conduction of an electrical impulse into the heart to depolarize cardiac muscle and convert fibrillation rhythm into normal sinus rhythm.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**:

1. Defibrillator with external paddles.
2. Batteries.
3. ECG monitor with recorder.
4. Conductive medium.
5. Cardio Resuscitation Kit (Sparks Kit).
6. Oxygen therapy equipment.
7. Airways.
8. Endotracheal Anesthesia Set.
9. AMBU bag.
10. Suctioning equipment.

D. **CRITERIA**:

1. Conversion of an abnormal rhythm following a precordial thump or cough has been well demonstrated in patients with ventricular tachycardia and complete heart block. Recently, it has been demonstrated as well for ventricular fibrillation. Because the speed of defibrillation is critical,a solitary precordial thump is recommended for all witnessed cardiac arrests

when a defibrillator is unavailable. When a precordial thump is used in patients who have ventricular tachycardia and a pulse, a defibrillator should be available since ventricular fibrillation can be induced. A precordial thump is delivered to the center of the sternum with the hypothenar aspect of the fist and from a height of no more than 12 inches.

2. Defibrillator battery will be charged and ready to use at all times.

3. Person in charge of the arrest will insure all personnel stand clear so that only the patient will receive the electrical current when "ALL CLEAR" is called.

E. **STEPS**:

1. Initiate basic cardiac life support (BCLS) and summon defibrillation equipment and assistance.

2. Verify ventricular fibrillation by ECG. Correlate with the clinical state of patient.

(a) Establish an airway or use existing endotracheal tube if in place.

(b) Perform external cardiac massage until defibrillator is ready. In the OR, internal cardiac massage may be necessary.

(c) When patients are monitored and defibrillation equipment is available, proceed with defibrillation.

3. Prepare to defibrillate.

(a) Obtain battery operated defibrillator.

(b) Check battery level.

(c) Prepare defibrillator paddles by covering entire metal surface with conductive medium. (The conductive medium is

needed to reduce skin resistance to current flow, prevent skin burns, and allow for optimal current flow to the myocardium.)

(d) Dial 200 watts/seconds (Joules).

(e) Activate charge button to charge unit with electrical current.

(f) Validate that defibrillator unit is in the non-synchronized mode so machine will fire correctly.

(g) Place paddles firmly into position against chest wall using 25-30 pounds of pressure.

(1) Best position - transverse position.

a Place one paddle at 2nd intercostal space right of sternum.

b Place second paddle at 5th intercostal space mid-clavicular line, left of sternum.

(2) Alternate position - anterior-posterior position.

a Place one paddle at anterior-precordial area.

b Place 2nd paddle at posterior-intrascapular area.

(h) Recheck ECG rhythm on cardioscope to validate Ventricular fibrillation pattern.

(i) Give command to stand clear of bed/litter/OR table prior to defibrillation to minimize risk of micro or macro shock to staff.

4. Defibrillate the patient.

(a) Depress the discharge button while simultaneously keeping both paddles in place until the electrical current is delivered.

(b) Check ECG rhythm on cardioscope for changes in pattern.

(1) If ventricular fibrillation persists, repeat defibrillation immediately.

(2) Continue CPR during any delays in defibrillation.

(3) If a second attempt is unsuccessful, immediately defibrillate with up to 360 Joules.

(4) If the ECG monitor shows an organized rhythm, check for a pulse. Continue CPR if no pulse present.

(5) If unsuccessful, continue with current ACLS protocol.

VENTRICULAR FIBRILLATION [a]

This sequence was developed to assist in teaching how to treat a broad range of patients with ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT). Some patients may require care not specified herein. This algorithm should not be construed as prohibiting such flexibility. The flow of the algorithm presumed that VF is continuing. CPR indicates cardiopulmonary resuscitation.

Witnessed Arrest	Unwitnessed Arrest
Check pulse - If no pulse	Check pulse - If no pulse
Precordial Thump	
Check pulse - If no pulse	
CPR until a defibrillator is available	
Check monitor for rhythm - if VF or VT	
Defibrillate, 200 Joules [b]	
Defibrillate, 200-300 Joules [b]	
Defibrillate with up to 360 Joules [b]	
CPR if no pulse	
Establish IV access	
Epinephrine, 1:10,000, 0.5-1.0 mg IV push [c]	
Intubate if possible [d]	

Defibrillate with up to 360 Joules [b]

Lidocaine, 1 mg/kg IV push

Defibrillate with up to 360 Joules [b]

Bretylium, 5mg/kg IV push [e]

(Consider Bicarbonate)[f]

Defibrillate with up to 360 Joules [b]

Bretylium, 10 mg/kg IV push [e]

Defibrillate with up to 360 Joules [b]

Repeat Lidocaine or Bretylium

Defibrillate with up to 360 Joules [b]

NOTES:

l. Pulseless ventricular tachycardia should be treated identically to ventricular fibrillation.

2. Check pulse and rhythm after each shock. If VF recurs after transiently converting (rather than persists without ever converting), use whatever energy level has previously been successful for defibrillation.

3. Epinephrine infusion should be repeated every five (5) minutes.

4. Intubation is preferable. If it can be accomplished simultaneously with other techniques, then the earlier the better. However, defibrillation and epinephrine are more important initially if the patient can be ventilated without intubation.

5. Some may prefer repeated doses of lidocaine, which may be given in 0.5 mg/kg douses every 8 minutes to a total dose of 3 mg/kg.

6. The value of sodium bicarbonate is questionable during cardiac arrest, and it is not recommended for the routine cardiac arrest sequence. Consideration of its use in a dose of l mEg/kg

is appropriate at this point. One half of the original dose may be repeated every 10 minutes if it is used.

SUSTAINED VENTRICULAR TACHYCARDIA

This sequence was developed to assist in teaching how to treat a broad range of patients with sustained ventricular tachycardia (VT). Some patients may require care not specified herein. This algorithm should not be construed as prohibiting such flexibility. The flow of the algorithm presumes that VT is continuing. VF indicates ventricular fibrillation; IV, intravenous.

No Pulse	Pulse Present	
Treat as VF	Stable	Unstable
	O_2	O_2
	IV Access	IV Access
	Lidocaine, 1 mg/kg	(Consider sedation)[c]
	Lidocaine, 0.5 mg/kg every 8 min. until VT resolves, or up to 3 mg/kg.	Cardiovert, 50 Joules[d,e] Cardiovert, 100 Joules[d]
Cardiovert,	Procainamide, 20 mg/min until VT resolves, or up to 1,000 mg.	200 Joules[d] Cardiovert, with up to 360 Joules[d]
	Cardiovert as	If recurrent,add

	In unstable patients [c]	Lidocaine and cardiovert again starting at energy level previously successful; then procainamide or Bretylium.

NOTES:

l. If the patient becomes unstable (see Footnote b for definition) at any time, move to the "Unstable" arm of the algorithm.

2. Unstable = symptoms (e.g. chest pain, dyspnea), hypotension (systolic BP <90 mm Hg), congestive heart failure, ischemia, or infarction.

3. Sedation should be considered for all patients, including those defined in Footnote b as unstable, except those who are hemodynamically unstable (e.g., hypotensive, in pulmonary edema, or unconscious).

4. If hypotension, pulmonary edema, or unconsciousness is present, unsynchronized cardioversion should be done to avoid the delay associated with synchronization.

5. In the absence of hypotension, pulmonary edema, or unconsciousness, a precordial thump may be employed prior to cardioversion.

6. Once VT has resolved, begin an IV infusion of the antiarrhythmic agent that has aided the resolution of the VT. If hypotensive, in pulmonary edema, or unconscious, use lidocaine if cardioversion alone is unsuccessful, followed by bretylium. In all other patients, the recommended order of therapy is lidocaine, procainamide, and the bretyulium.

ASYSTOLE (CARDIAC STANDSTILL)

This sequence was developed to assist in teaching how to treat a broad range of patients with asystole. Some patients may

require
care not specified herein. This algorithm should not be construed to prohibit such flexibility. The flow of the algorithm presumes asystole is continuing.

CPR indicates cardiopulmonary resuscitation; VF, ventricular fibrillation; IV, intravenous.

If rhythm is unclear and possibly ventricular fibrillation, defibrillate as for VF.If Asystole is present: [a]

Continue CPR
Establish IV access
Epinephrine, 1:10,000, 0.5-1.0 mg IV push [b]
Intubate when possible [c]
Atropine, 1.0 mg IV push (repeated in 5 min)
(Consider bicarbonate) [d]
Consider pacing

NOTES:

1.. Asystole should be confirmed in two leads.

2.. Epinephrine should be repeated every 5 minutes.

3. Intubation is preferable; if it can be accomplished simultaneously with other techniques, then the earlier the better. However, CPR and the use of epinephrine are more important initially if the patient can be ventilated without intubation. (Endotracheal epinephrine may be used.)

4. The value of sodium bicarbonate is questionable during cardiac arrest, and it is not recommended for the routine
cardiac
arrest sequence. Consideration of its use in a dose of 1mEg/kg
is
appropriate at this point. One half of the original dose may
be
repeated every 10 minutes if it is used.

ELECTROMECHANICAL DISSOCIATION

This sequence was developed to assist in teaching how to treat
a
Broad range of patients with electromechanical dissociation (EMD). Some patients may require care not specified herein. This algorithm should not be construed to prohibit such flexibility. The flow of the algorithm presumes that EMD is continuing. CPR indicates cardiopulmonary resuscitation; IV,

intravenous.

Continue CPR
Establish IV access
Epinephrine, 1:10,000, 0.5-1.0 mg IV push [a]
Intubate when possible [b]
(Consider bicarbonate) [c]
Consider Hypovolemia,
Cardiac Tamponade,
Tension Pneumothorax,
Hypoxemia,
Acidosis,
Pulmonary Embolism

NOTES:

l.Epinephrine infusion should be repeated every 5 minutes.

2. Intubation is preferable. If it can be accomplished simultaneously with other techniques, then the earlier the better. However, epinephrine is more important initially if the patient can be ventilated without intubation.

3. The value of sodium bicarbonate is questionable during cardiac arrest, and it is not recommended for the routine cardiac arrest sequence. Consideration of its use in a dose of 1 mEg/kg is appropriate at this point. One half of the original dose may be repeated every 10 minutes if it is used.

PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA

This sequence was developed to assist in teaching how to treat a broad range of patients with sustained PSVT. Some patients may require care not specified herein. This algorithm should be not construed as prohibiting such flexibility. The flow of the algorithm presumes PSVT is continuing.

Unstable	Stable
Synchronous Cardioversion 75 - 100 Joules	Vagal Maneuvers
Synchronous Cardioversion	Verapamil, 5 mg IV

200 Joules

Synchronous Cardioversion
360 Joules

Verapamil, 10 mg IV
(in 15-20 min)

Correct underlying abnormalities

Cardioversion, Digoxin
B-Blockers, Pacing as
indicated

Pharmacological Therapy -
Cardioversion

If conversion occurs but PSVT recurs, repeated electrical cardioversion is not indicated. Sedation should be used as time permits.

BRADYCARDIA

This sequence was developed to assist in teaching how to treat a broad range of patients with bradycardia. Some patients may require care not specified herein. This algorithm should not be construed to prohibit such flexibility. A-V indicates atrioventricular.

Slow Heart Rate (<60 beats/min) [a]

Sinus or Junctional	Second Degree A-V Block Type I	Second Degree A-V Block Type II	Third Degree A-V Block
Signs or Symptoms [b]		Signs or Symptoms [b]	
No	Yes		No
Observe	Atropine, 0.5-1.0 mg		Transvenous Pacemaker

Continued Signs and Symptoms b

No

For Second Degree Type II or Third Degree:

Transvenous Pacemaker

Observe

Yes

For Second Degree Type I, sinus or junctional:

Repeat Atropine, 0.5-1.0 mg.

Continued Signs/Symptoms b

Yes

External Pacemaker c

or

Isoproterenol, 2-10 mg/min c

Transvenous Pacemaker

NOTES:

1. A solitary chest thump or cough may stimulate cardiac electrical activity and result in improved cardiac output and may be used at this point.

2. Hypotension (BP <90 mm Hg), PVCs, altered mental status or symptoms (e.g., chest pain, dyspnea), ischemia, or infarction.

3. Temporizing therapy.

VENTRICULAR ECTOPY: ACUTE SUPPRESSIVE THERAPY

This sequence was developed to assist in teaching how to treat a broad range of patients with ventricular ectopy. Some patients may require therapy not specified herein. This algorithm should

not be construed as prohibiting such flexibility.

Assess for need for Acute Suppressive Therapy
Rule out treatable cause
Consider serum potassium
Consider digitalis level
Consider bradycardia
Consider drugs
Lidocaine, 1 mg/kg

If not suppressed, repeat lidocaine, 0.5 mg/kg every 2-5 min. until no ectopy, or up to 3 mg/kg given

If not suppressed, procainamide 20 mg/min until no ectopy, or up to 1,000 mg given

If not suppressed, and not contraindicated, bretylium, 5-10 mg/kg over 8-10 min.

If not suppressed, consider overdrive pacing

Once ectopy resolved, maintain as follows:

After Lidocaine, 1 mg/kg	Lidocaine drip, 2 mg/min
After Lidocaine, 1-2 mg/kg	Lidocaine drip, 3 mg/min
After Lidocaine, 203 mg/kg	Lidocaine drip, 4 mg/min
After Procainamide	Procainamide drip, 1-4 mg/min (check lood level)
After Bretylium	Bretylium drip, 2 mg/min

Assess patient status and precipitating factors to prevent further decompensation of the patient.

5. Provide post defibrillation care.

(a) Perform a complete base-line physical assessment of patient. Assess vital signs, peripheral pulses, respiratory pattern, and level of consciousness.

(b) Monitor ECG rhythm watching for arrhythmias.

(c) Obtain a 12 lead ECG to assess myocardial damage.

(d) Administer oxygen to reduce hypoxemic state.

(e) Assess chest wall for any burns. Apply Silver Sulfadiazine to any burned areas.

(f) Establish an IV line for medication administration, if not present.

(g) Administer prescribed medications IAW Physician Orders.

(1) Monitor drips of antidysrhythmic drugs (lidocaine) carefully.

(2) Observe patient and ECG pattern for medication effects.

6. Document defibrillation on Cardiac Arrest Flow Sheet. Record the following:

(a) Ventricular fibrillation was observed on monitor. If available, include pre-defibrillation ECG rhythm strip.

(b) Number of times defibrillation was attempted.

(c) Voltage used with each attempt.

(d) Post-defibrillation ECG rhythm. Include an ECG rhythm strip if available.

(e) Physiological multisystem status.

(f) Death.

F. **PRECAUTIONS:**

1. Check that equipment is properly grounded to prevent current leakage.

2. Disconnect other electrical equipment attached to patient to prevent possible equipment damage from the voltage surge.

3. Use conductive medium on paddles conservatively to prevent over arcing of the current flow to the patient.

4. Clean defibrillator of remaining electrical current immediately after use. Never set charged defibrillator paddles down.

5. Check that defibrillator is in non-synchronized mode such that it is not dependent upon an R wave to trigger defibrillation.

G. **COMPLICATIONS:**

1. Dysrhythmias
2. Cardiac arrest
3. Respiratory arrest
4. Neurological impairment
5. Altered skin integrity
6. Pulmonary edema
7. Pulmonary or systemic emboli
8. Equipment malfunction
9. Death

H. **RESPONSIBILITY:**

1. Medical Officer will defibrillate the patient.

2. Nurse will administer medication, assist with CPR, and record the information in the patient's chart.

3. Hospital Corpsman will inspect and maintain the defibrillator equipment and supplies in working order. Supplies for the Sparks Kit will be obtained from Material Management Department.

I. **REFERENCE:**

1. Interim Guideline for Advanced Cardiac Life Support (ACLS), The American Heart Association.

2. Textbook of Advanced Cardiac Life Support (ACLS), The American Heart Association.

TAB C-6

ROUTINE MEDICATION TIMES

A. **PURPOSE**: To standardize medication administration times so that nursing service and pharmacy can perform this task most efficiently.

B. **SCHEDULE**:

1. Routine times.

a.	qd	0900
b.	bid	0900-2100
c.	tid	0600-1400-2200
d.	qid	0600-1200-1800-2400
e.	q4hr	0200-0600-1000-1400 etc
f.	q6hr	0600-1200-1800-2400
g.	q8hr	0600-1400-2200
h.	q3hr	0300-0600-0900 etc
i.	q12hr	0600-1800
j.	qhs	2200
k.	Daily insulin	0700
l.	Insulin sliding scale	0700-1100-1600-2100

2. Special considerations for adjusting times.

(a) Triple IV antibiotics are ordered.

(b) Diuretics are ordered: best to administer before 2200.

(c) Oral antibiotics scheduled for 2400 should be given at 2200 so sleep is not interrupted.

C. **CRITERIA**:

Medications will be given at routine times unless

adjusted for reason specified.

D. **STEP:**

1. Complete medication cards and MAR sheet with times stated above.

2. For medication times differing from the routine, note this in margin of Doctor's Orders Sheet, SF 508, prior to sending to Pharmacy.

E. **RESPONSIBILITY:**

Charge Nurse.

TAB C-8

PROCEDURES FOR RELEASE OF MEDICAL INFORMATION

A. **PURPOSE**: To provide procedures of release of medical information within the hospital.

B. **DEFINITION**: Medical Information - Information contained in the health or dental record of individuals who have undergone medical examination or treatment.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**: N/A.

D. **STEPS**:

1. Upon presentation of requests for medical information refer to procedures contained in the following references:

(a) Manual of the Medical Department, Chapter 23.

(b) Freedom of Information Act, BUMEDINST 5720.8.

(c) Personal Privacy and Rights of Individuals Regarding Records, SECNAVINST 5211.5.

(d) Availability of Navy Records, Policies, SECNAVINST 5720.42.

E. **GENERAL GUIDELINES**:

1. Information contained in health care records of individuals who have undergone medical or dental examination or treatment is personal to the individual and is therefore considered to be of a private and confidential nature. Information from such health care records, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, should not be made available to anyone except as authorized by the patient or as allowed by the provisions of Manual of the Medical Department Chapter 23 and the Privacy Act of 1974 as implemented by SECNAVINST 5211.5 series.

2. Release of information will be coordinated by the Patient Affairs Officer.

3. Personal information of non-medical nature will not be released.

4. Personnel in the patients chain of command may be provided with information required to conduct command business but will be referred to the Patient Affairs Office.

5. Release of information will conform to local command and superior command policy.

6. All Department Heads shall ensure wide dissemination of this information and compliance with procedures outlined herein.

F. **RESPONSIBILITY**:

1. Director of Administration.

2. Patient Affairs Officer.

3. Charge Nurse or Assistant.

TAB C-9

PROCEDURE FOR PICK-UP AND DELIVERY OF HOSPITAL LAUNDRY

A. **PURPOSE**: It will be logistically impossible to pick up and deliver laundry at each individual ward and CSR. Therefore, this procedure establishes central collection points and the methodology for preparing laundry for turn-in.

B. **DEFINITIONS**: N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**:

1. Canvas laundry bags.

2. Request for clean linen/laundry.

D. **CRITERIA**: N/A.

E. **STEPS**:

1. Designated Laundry Petty Officer will:

(a) Set up laundry bags, tagging one for bed linen, one for clothing (including patient clothing), and one for contaminated laundry.

(b) Daily at 0800, take the soiled laundry to the nearest Clinical Work Space along with a request for the next day's linen/laundry supply.

(c) Distribute cleaned patient clothing.

2. Linen Control Clerks.

(a) Pick-up and receipt for hospital laundry at each Clinical Work Space.

(b) Collect Requests For Clean Linen/Laundry.

(c) Fill requests submitted the previous day and return cleaned patient clothing.

TAB C-10

PROCEDURE FOR HANDLING AND LAUNDERING CONTAMINATED LINENS

A. **PURPOSE:** The Combat Zone Fleet Hospital will generate a significant amount of contaminated linen within the operating rooms and treatment wards. These items will require special handling and laundering to prevent the spread of infection.

B. **DEFINITION:** Contaminated laundry is defined as those items requiring special disinfection and laundering to preclude the spread of infection.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Chlorine bleach solution.

2. Latex gloves.

D. **CRITERIA:** N/A.

E. **STEPS:**

1. Hospital ward personnel will bag contaminated laundry separate from regular laundry. Gloves are to be worn when handling contaminated laundry.

2. Contaminated laundry will be receipted by the Linen Control Clerks and delivered to the laundry.

3. At the Laundry all contaminated laundry will be segregated from that requiring only routine processing.

4. Based on the next day's requirements and current inventory the contaminated laundry will be assigned a processing priority.

5. The contaminated laundry will be processed as follows:

(a) Presoak the contaminated laundry for 60 minutes in a chlorine solution of 50 ppm.

(b) Wash the linen in hot water using a normal cycle.

6. Once laundered these items will be placed in inventory for re-issue.

F. **RESPONSIBILITY:**

The Head, Environmental Health Department is responsible for routinely monitoring the handling and laundering of contaminated items to preclude the spread of infections.

CAUTION: Extreme care must be taken to avoid contact with the contaminated laundry to prevent the spread of infection to laundry and other hospital personnel.

TAB C-11

PATIENT PROCEDURES FOR HANDLING EXPATRIATED PRISONERS OF WAR

A. **PURPOSE**: To detail patient handling procedures for expatriated prisoners of war within the fleet hospital.

B. **DEFINITION**:

Expatriated prisoners of war (EPW) - those patients who require treatment who are prisoners of U.S. or allied combat forces.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**:

1. Restraints (theater command military police or hospital issue).

2. Others as specified in admission procedures (all forms will be marked with the words "Prisoner of War" or "EPW").

D. **STEPS**:

1. Upon presentation of EPW to functional area, notify Security Department.

2. Upon admission to Casualty Receiving, Security will be responsible for the following notifications:

(a) Theater command military police(MP) headquarters.

(b) Executive Officer.

(c) Director of Nursing.

(d) Director of Administration.

3. Perform essential life saving care.

4. Inform MP that custody of patient will not be assumed by hospital staff and that MP will retain custody of EPW until relieved by appropriate MP headquarters staff or patient is transferred to EPW holding center (external to hospital).

5. After treatment, have corpsman or litter bearer escort MP

and EPW to next functional area charge nurse. Admissions packet, correctly annotated will be delivered by hand to charge nurse.

6. During course of treatment, patient will be guarded by MP and/or restrained until treatment is terminated.

7. Movement to another functional area will be reported to Security.

8. EPW's will be fed either on the ward or in the general mess. If allowed to eat in the general mess, EPW's will be accompanied by MP guards.

E. **RESPONSIBILITY**:

CMAA/Security.

TAB C-12

CASUALTY WITH UNEXPLODED ORDNANCE EMBEDDED

A. **PURPOSE:** To provide guidance in admitting, processing, and treating a casualty who has unexploded ordnance embedded in a body part.

B. **DEFINITION:** An explosive device (most often from a rifle grenade fired at close range) which has not travelled sufficient distance for fuse detonation and explosion, and is embedded in the body of a casualty.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

Sandbags.

D. **CRITERIA:**

1. Sandbags will be stored outside Casualty Receiving Area.

2. Ordnance removed from the casualty's body without detonation.

3. Ordnance removed from the hospital environment without detonation.

4. Ordnance disposed of safely.

E. **STEPS:**

1. Prepare sandbags.

(a) Casualty Receiving Senior Corpsman is responsible for filling bags with sand and storing bags in a sheltered area outside Casualty Receiving.

(b) Prepare sandbags when setting up area.

2. Care of casualty with unexploded ordnance.

(a) Place casualty in area removed from other casualties and personnel.

(1) Keep casualty outside, if possible.

(2) If inside, stack sandbags around the casualty.

(3) Have absolute minimum of personnel near casualty.

(b) Call Security and have them summon an explosive ordnance disposal expert.

(c) Upon determination of what the ordnance is, take additional safety precautions as determined by the attending surgeon in conjunction with the explosive ordnance disposal expert.

(d) Prepare casualty for removal of ordnance as soon as practicable. If in the OR, stack sandbags around the casualty and immediate operating personnel. All other personnel remain outside the perimeter of sandbags.

(e) Tag inpatient record chart to alert other personnel to the presence of unexploded ordnance prior to transfer from initial intake point.

(f) After removal of the unexploded ordnance, give it to the explosive ordnance disposal expert, who will then dispose of the ordnance in a safe and appropriate manner.

F. **RESPONSIBILITY**:

1. Casualty Receiving Senior Corpsman.

2. Admitting clerk.

3. Surgeon.

4. Explosive ordnance disposal expert.

TAB D

CLINICAL POLICIES/GUIDELINES INDEX

TAB D-1

MAXILLOFACIAL TRAUMA/OTOLARYNGOLOGY POLICIES

A. No maxillofacial repairs will be performed in the theater except those that may return to duty within the evacuation policy.

B. All facial fractures (open or closed) that will not allow return to duty within the evacuation policy will not have reduction unless stabilization for transportation is necessary.

C. All wiring used to immobilize maxillary and mandibular fractures will be of the quick release type in order to allow urgent control of the airway during aeromedical evacuation.

D. Middle ear injuries that will require extensive surgery to repair will be evacuated to CONUS.

E. Conditions such as chronic mastoiditis (patient condition 231) that can be RTD within the evacuation policy will be operated in the theater.

F. Neck wounds (penetrating injuries) will require thorough exploration to rule out esophageal injury.

TAB D-2

SURGICAL GUIDELINES

A. Whenever abdominal, thoracic, or contaminated surgery is being conducted, simultaneous specialty (Orthopedic, Neurosurgical, Ophthalmological, or Vascular) will not be performed.

B. Operating microscopes are available at COMMZ only. Microscopes are nonsupportable in combat zone. They will be placed in a special augmentation package for Echelon 4. (If damage occurs, microscopes will be exchanged; no repair will be done in the theater.)

C. All casting materiel is documented in the Casting "G" module using one of the "G" tasks. Time has been documented for the cast tech for casting in the OR as well as for checks of splints, casts, pins, and fixateurs on the wards. This time is 4 minutes once a day.

D. In all open fractures of extremities a combination of external fixateurs and plastered casting material will be used. for modeling purposes, 75% of the patients will have external fixateurs and 25% will receive plaster material.

E. Irrigating Fluids:

1. DEPMEDS recognizes the requirement for adequate amount of irrigating fluids. However, emphasis should be placed on using the minimal amount necessary because of the tremendous impact on the logistical system.

2. There will be 2 liters of normal saline per operative case.

F. Dressings will ordinarily not be changed prior to day 4 post nitial wound debridement at which time the wound will be examined in the OR for further debridement or delayed primary closure.

However, a blood soaked dressing, excessive hemorrhage, and/or sepsis may necessitate wound examination and redressing outside the OR. In the data base, all wounds that render the patient non-return to duty within the evacuation policy have a dressing reinforcement in 20% of patients. This category of patients otherwise have dressing reapplied as indicated above in the OR if the stay in theater exceeds 4 days. Further, if the stay exceeded 8 days, another dressing change would be done. For patients returning to duty in the theater, the same policy is in use during initial 4 days and periodic dressing change is accomplished depending on the nature and severity of injury.

G. Blood recovery equipment (or Cell Saver) is available in DEPMEDS at Echelons 3 and 4 and will be used to the maximum extent practical. Anesthesia personnel are responsible to set up and maintain this equipment during operative procedures. Theoretically, this equipment may be used in contaminated and septic cases; however, it is not applied in these cases in the data base. The machine requires a liter of sterile saline with 30,000 units of heparin for primary and an additional liter of saline for each unit of blood recovered. Also, it requires a liter for cleaning. The cleaning of the equipment is modeled under the anesthesia area but will be performed by an operating room technician. The set-up consumables are found in CSG 12 and cleaning consumables are in CSG 22.

TAB E

STANDARDS AND JOB DESCRIPTIONS INDEX

TAB E-1

EMERGENCY CARDIO RESUSCITATION KIT

A. **PURPOSE:** To provide appropriate supplies/equipment needed during emergency situations.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Emergency Cardio Resuscitation Kit (Sparks Kit).

2. Emergency Kit Inventory List.

3. Departmental Log.

D. **CRITERIA:**

1. Emergency Cardio Resuscitation Kit is readily accessible.

2. Kit is completely stocked and inventoried when seal is intact.

3. Oxygen cylinders, wrenches, and seals on Emergency Cardio Resuscitation Kit will be checked every watch.

E. **STEPS:**

1. Emergency Cardio Resuscitation Kit will be located in the Casualty Receiving Area at all times. It will be used only for cardio resuscitative emergencies.

2. Senior Corpsman on each watch will check to ensure seals have not been broken, and oxygen pressure in cylinders is sufficient, that psi is not less than 500.

3. Inventory emergency Cardio Resuscitation Kit every three months or when seals have been broken.

4. Check daily the Emergency Kit Inventory List posted on the outside of kit for drug expiration dates.

5. Make appropriate entries in the Departmental Log (TAB J-1).

6. Senior Corpsman will be responsible for re-supplying cart during normal working hours. The Watch LPO assumes this responsibility at other times.

F. **RESPONSIBILITY:**

Senior Corpsman or his representative.

TAB E-2

SPECIALTY TREATMENT AREA CLEANING SCHEDULE

A. **PURPOSE:** To keep the environment as clean as possible.

B. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. 4 Scrub basins/buckets.
2. Gloves.
3. Wet vacuum.
4. Scrub brushes.
5. Sponge mop.
6. Wipes.
7. Detergent, GP.
8. Germicidal solution.
9. Laundry hamper.
10. Plastic, water soluble laundry bag.
11. Plastic trash bag.
12. Covered container for medical/dental wastes.

C. **CRITERIA:**

1. Soiled linens, trash, and medical wastes are removed at the end of watch and as needed.
2. Decks will be wet-vacuumed daily.
3. Counter tops will be cleaned daily.
4. Temper tent equipment, shelving, litters are cleaned weekly.
5. Refrigerator and ice machine are cleaned weekly.

D. **STEPS:**

1. Watch cleaning schedule.

(a) When patient is transferred, immediately clean the patient area, and restock supplies to be ready for next admission.

(b) Check PSI level on each oxygen cylinder. Notify medical supply to replace oxygen cylinder when near 100 psi.

(c) Remove cloth laundry bags when full and place in utility module for laundry to pick up about 1000 daily.

(d) Empty drainage bottles into a covered medical waste container.

(e) Empty trash into plastic bags and dispose of at designated trash area.

(f) Take used sterile instruments to CSR support module for reprocessing.

(g) Wash any surface including deck that may have become contaminated or soiled with blood, etc.

2. Daily cleaning schedule.

(a) Wash decks with wet-vacuum on night watch.

(b) Wipe down counter tops on night watch.

(c) Restock supplies on night watch.

3. Weekly cleaning schedule.

(a) Wipe down litter racks, storage cabinets, shelving, and deck tops.

(b) Clean the refrigerator and ice machine.

E. **RESPONSIBILITY**:

Senior corpsman or LPO will assign cleaning details to watch.

TAB E-3.1

HEAD, OTOLAYNGOLOGIY-HEAD & NECK SURGERY DEPARTMENT

JOB DESCRIPTION

The Head of the Otolaryngology Department will be responsible for the Otolaryngology care of all patients treated.

THE HEAD OF THE OTOLARYNGOLOGY DEPARTMENT WILL:

1. Set policies and procedures for otolaryngology care given in the hospital.

2. Perform otolaryngology evaluation and treatment procedures.

3. Perform otolaryngology surgical procedures.

4. Complete short form history and physical (SF 539) for an admission within 24 hours of admission.

5. Assign a primary diagnosis for otolaryngology disorder.

6. Formulate treatment plans to be implemented by nurse and Otolaryngology technician.

7. Document patient progress and treatment on progress notes at least every two days.

8. Make daily rounds on otolaryngology patients beginning at 0830 to evaluate and reassess treatment plans.

9. Be on call to specialty treatment area for otorhinolaryngology admissions.

10. Monitor ENT care given by nurse and ENT technician.

11. Oversee an orientation and training program for department staff.

12. Provide training lectures to medical officers about combat problems and treatment protocols.

13. Consult with ward medical officers about patients with problems.

14. Approve all communications within and outside of the department.

15. Approve all personnel performance evaluations.

16. Prepare and submit required reports in final form.

QUALIFICATIONS:

1. Designator 2100/2105 Physician.

2. Board certified 0249-NOBC Code.

3. Fully credentialed.

4. Advanced Cardiac Life Support (ACLS) certified.

5. Advanced Trauma Life Support (ATLS) certification recommended.

6. Intermediate leadership, management and training certification recommended.

7. Fleet Hospital Operation Course Graduate.

TAB E-3.2

ENT TECHNICIAN JOB DESCRIPTION

The ORL Technician will assist the Head, Otolaryngology Department in providing care to assigned patients.

THE ORL TECHNICIAN WILL:

1. Perform audiograms as required.

2. Set up and assist the ORL-HNS surgeon in performing minor surgical procedures in the Specialty Treatment Unit.

3. Serve as scrub technician in main ORs. As such, the tech will:

(a) Check room for necessary gear, i.e., suction, bovine, prep supplies.

(b) Check all sterile gear required by case for expiration dates, damaged packaging, lot numbers, and completeness.

(c) Open all sterile gear correctly and maintain a sterile field.

(d) Assemble any additional gear and flash sterilize PRN.

(e) Set up own gown and gloves.

(f) Perform surgical scrub as required by procedure.

(g) Gown and glove using aseptic technique.

(h) Assemble instrument sets, drapes, and surgeon's gown and gloves, maintaining sterility throughout.

(i) Receive sterile/flashed supplies from circulator.

(j) Assist surgeon with gowning and gloving.

(k) Assist surgeon with draping and passing off suction and Bovine.

(l) Assist surgeon with procedure by passing correct instruments, sutures, assisting with suctioning, retraction, and patient comfort.

(m) Monitor surgeon's sterile technique.

(n) Pass off specimens and identify same upon passing them off, including name of specimen.

(o) Receive dressing supplies from circulator.

(p) Pass appropriate dressing supplies to surgeon and assist with dressing as needed.

(q) Break down sterile gear and clean instruments used for procedure, separating augmentation gear from gear contained in the basic instrument set.

(r) Clean all instruments.

(s) Assist circulating technician in cleaning room and setting up for subsequent case(s).

(t) Display local anesthetic containers to surgeon to verify anestric agent administered.

(u) Log all surgical procedures.

4. Demonstrate proficiency in dealing with medical emergencies. Specifically, the ORL tech will:

(a) Follow cardiac arrest procedures set forth in TAB C-4.

(b) Provide first aid and life saving measures IAW TAB C-4.

(c) Assist in defibrillation procedures IAW TAB C-5.

5. Maintain all ENT instruments in good working condition:

(a) Monitor the safety and function of all equipment, submit work request to medical repair, and track progress on work requests.

(b) Monitor and maintain adequate administrative and patient care supplies. Replenish supplies IAW Chapter 14, Materials Management.

6. Ensure proper disposition of contaminated instruments, equipment, and materials.

7. Assist other corpsmen in the ENT care of other patients.

8. Maintain good interpersonal relations with other hospital departments and staff members.

9. Report to and obtain assistance from senior corpsman, Specialty Treatment area as needed.

10. Ensure daily logs and records are completed correctly.

11. Check emergency equipment each watch.

12. Perform other duties as assigned by senior corpsman in Specialty Treatment area.

QUALIFICATIONS:

1. Completion of "A School" for hospital corpsman.

2. HM3 or above.

3. NEC Code 8446.

4. Basic Cardiac Life Support (BCLS) certified.

5. Graduate of Fleet Hospital Operations Course.

TAB F

REFERENCES INDEX

NUMBER	TITLE
F-1	NAVMED P-5066-A, NAVY NURSING PROCEDURES MANUAL.
F-2	BASIC CARDIAC LIFE SUPPORT (BCLS) INTERIM GUIDELINES, BY THE AMERICAN HEART ASSOCIATION.
F-3	ADVANCED CARDIAC LIFE SUPPORT (ACLS) INTERIM GUIDELINES, BY THE AMERICAN HEART ASSOCIATION.

TAB G

FORMS INDEX